Lake Shasta Enlargement Analysis Status

CALFED conducted a pre-feasibility evaluation of Shasta Reservoir enlargement options, which was documented in "CALFED Storage and Conveyance Components, Facility Descriptions and Cost Estimates, Volume 2," dated October 1997. Through its consultant team, CALFED investigated two levels of enlargement from the existing capacity of 4.55 million acre-feet to 6.75 MAF and 14.3 MAF, respectively. The corresponding rise in maximum water surface elevation would be 63 feet for 6.75 MAF capacity and 202 feet for 14.3 MAF capacity.

In late fall of 1997 the U.S. Bureau of Reclamation decided to conduct its own pre-feasibility investigation of Lake Shasta enlargement, with particular focus on more modest lake enlargement options up to about 1.0 MAF, CALFED is coordinating with USBR on this study. The USBR investigation was scheduled to be completed in the late January-February 1998 timeframe.

The enlargement of Lake Shasta could be obtained by different methods:

- Changing the design of the exiting radial gates and raising them up to 20 feet could provide about 0.5 MAF at a relatively low cost.
- Building up the dam to the point where minimum changes to the freeway alignment and structures appear feasible for a 1.0 MAF additional enlargement.
- Enlarging the reservoir in large scale, which would need substantial work to relocate the freeway, railroad tracks and related structures (tunnels, bridges), as well as recreational and commercial structures.

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